

**REMARKS**

In the March 29, 2005 Office Action, the Examiner:

- Rejected claim 10 due to an informality;
- Rejected claim 9 under 35 U.S.C. 112, second paragraph, as being indefinite;
- Rejected claim 20 under 35 U.S.C. 102(b) as being anticipated by Kollanyi *et al.* (“Kollanyi”, U.S. Pat. No. 4,809,286);
- Rejected claims 1, 2, 4-6, 8, 9, 13-15 and 17-19 under 35 U.S.C. 103(a) as unpatentable over Chan *et al.* (“Chan”, U.S. Pat. No. 5,801,866) in view of King *et al.* (“King”, U.S. Pat. No. 5,812,572);
- Rejected claim 3 under 35 U.S.C. 103(a) as unpatentable over Chan in view of King as applied to claims 1 and 2 above, and further in view of Jau *et al.* (“Jau”, U.S. pat. No. 6,205,505B1);
- Rejected claims 7, 11 and 16 under 35 U.S.C. 103(a) as unpatentable over Chan in view of King as applied to claim 1 above, and further in view of Traa (“Traa”, U.S. pat. No. 6,222,660B1);
- Rejected claim 10 under 35 U.S.C. 103(a) as unpatentable over Chan in view of King as applied to claim 1 above, and further in view of Traa and Giebel *et al.* (“Giebel”, U.S. Pat. No. 5,926,303A);
- Rejected claim 21 under 35 U.S.C. 103(a) as unpatentable over Kollanyi in view of Traa;
- Rejected claim 22 under 35 U.S.C. 103(a) as unpatentable over Kollanyi in view of Thorton (“Thorton”, U.S. App. No. US2004/0202210A1);
- The Examiner has noted that claim 12 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have amended claims 5 and 9 to correct typographical errors. Applicants have added new claim 23 directed to previously claimed subject matter. Applicants retain the remainder of the claims in their current form and respectfully present arguments for their allowability.

***Claim Objections***

Claim 10 is objected to as line 5 of the claim recites “a direct current (DC) bias signal...” The Examiner has suggested that Applicants amend the phrase to “a direct current (DC) bias monitor signal”. Applicants have corrected to claim 10 as suggested by the Examiner.

***Claim Rejections - 35 U.S.C. § 112***

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner states that Claim 9 recites the limitation "said AC control signal" in line 2 of the claim, but that there is insufficient antecedent basis for this limitation in the claim. The Examiner suggests that claim 9 should depend on claim 8.

Applicants have amended claim 9 to now depend from claim 8 as suggested by the Examiner. Accordingly, it is respectfully submitted that the Examiner's 35 U.S.C. 112 rejections have been addressed.

***Claim Rejections - 35 U.S.C. § 102***

The Examiner has rejected claim 20 under 35 U.S.C. 102(b) as being anticipated by *Kollanyi*. For a proper showing that these claims are anticipated by *Kollanyi*, all elements of each rejected claim must be disclosed in the cited reference. Claim 20 has been amended and now requires: (i) a first controller IC configured to supply a DC bias current control signal to a laser driver causing the laser driver to supply DC bias current having a predetermined level determined by the DC bias current control signal to the optoelectronic transmitter, and (ii) a second controller IC electrically coupled to the laser driver to supply an AC current control signal to said laser driver causing the laser driver to supply AC current having a predetermined level determined by the AC current control signal to the optoelectronic transmitter.<sup>1</sup> As will be shown below, *Kollanyi* does not disclose either of these limitations.

The Examiner states that:

Kollanyi et al. disclose . . . a first controller integrated circuit (laser DC bias control 150) electrically coupled to the laser driver, where the first controller IC is configured to supply a direct current (DC) bias current control signal to the laser driver causing the laser driver to supply DC bias current to the optoelectronic transmitter (column 3, lines 45-48);

(Emphasis added).

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<sup>1</sup> Support for these amendments can be found in at least paragraphs 40, 43 and 66 of the current specification.

However, *Kollanyi* discloses that the “Laser DC Bias Control [is] arranged to turn off the Laser 160 in case the data drive fails.” *See* col. 3, lines 45-48. In other words, the Laser DC Bias disclosed by *Kollanyi* does not teach supplying a direct current (DC) bias current control signal to the laser driver to control the DC bias current level, but rather teaches supplying a DC Bias Control to turn off the Laser 160 in case the data drive fails. This is confirmed by *Kollanyi* on col. 4, lines 1-6, which states that DC “prebias is provided [sic.] [provided] by coil 21 and capacitor 22 from a negative DC current source. The prebias will provide a DC constant current source . . . to the laser 160 to achieve its threshold.” In other words, the DC bias is provided by the analog circuitry of the coil 21 and capacitor 22 and not from a controller IC. Accordingly, for this reason alone, *Kollanyi* cannot anticipate independent claim 20, as *Kollanyi* does not disclose each and every element of the claim.

Furthermore, the Examiner states that

a second controller IC (data driver 180) electrically coupled to the laser driver to supply an alternating current (AC) current control signal to the laser driver causing the laser driver to supply AC current to the optoelectronic transmitter (column 4, lines 17-24).

However, the cited sections of *Kollanyi* disclose that “[t]he AC constant current is superimposed on the DC current . . . [t]ransistors 10 and 20 in this configuration form a high speed differential switching amplifier . . . effectively turning the laser on and off.” *See* col. 4, lines 17-24. In other words, *Kollanyi* does not teach supplying an AC current control signal to said laser driver causing the laser driver to supply AC current having a predetermined level determined by the AC current control signal to the optoelectronic transmitter, but rather teaches supplying AC current from the analog circuitry of the transistors 10 and 20. Accordingly, for this reason alone, *Kollanyi* cannot anticipate independent claim 20, as *Kollanyi* does not disclose each and every element of the claim.

Still further, the present claims require transmitting control signals from separate integrated circuits. The analog circuitry of the coil 21 and capacitor 22, and the analog circuitry the analog circuitry of the transistors 10 and 20, are not the controller integrated circuits required by claim 20.

In light of the above, it is respectfully submitted that *Kollanyi* does not disclose, teach, or suggest all of the limitations of independent claim 20, and as such cannot anticipate independent claim 20.

***Claim Rejections - 35 U.S.C. § 103***

The Examiner has rejected claims 1, 2, 4-6, 8, 9, 13-15 and 17-19 under 35 U.S.C. 103(a) as unpatentable over *Chan* in view of *King*. This set of claims includes one independent claim, namely independent claim 1, which requires: (i) a memory configured to store digital diagnostic data, where at least some of the digital diagnostic data is common to both said first controller IC and said second controller IC, and (ii) at least one input port electrically coupled to the memory and configured to receive said diagnostic data from other components within said optoelectronic transceiver. As will be shown below, neither *Chan* nor *King* disclose these limitations.

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.<sup>2</sup>

The Examiner states that "Chan discloses that the memories are configured to store digital diagnostic data, where at least some of the digital diagnostic data is common to both the first controller IC and the second controller IC (column 5, lines 20-45)." However, despite a careful review of the cited portions of *Chan*, Applicants could find no mention that some of the data common to both controllers is stored in a shared memory. Rather, *Chan* discloses that

[i]t is then transferred to the transmit microcontroller which then places the data into memory with a time and date stamp on it. The data is transmitted as explained above for the Leica data. CCD camera data are digitized and stored in memory then processed as explained for the Leica data.

See col. 5, lines 28-33; see also col. 5, lines 41 and col. 7, line 64 – col. 8, line 2. In other words, *Chan* does not disclose storing in memory data common both of the controller ICs. Rather, *Chan* refers to storing data from the transmit controller only and not the receiver controller.

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<sup>2</sup> *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Furthermore, *Chan* does not disclose storing digital diagnostic data for both controller ICs. In particular, *Chan* does not disclose storing any digital diagnostic data<sup>3</sup> from the receiver controller 128. Again, for this reason alone, independent claim 1 and any claims that depend therefrom cannot be unpatentable over the combination of *Chan* and *King*, as neither of these cited references teach or suggest storing digital diagnostic data common to both controller ICs.

For at least the reasons presented above, independent claim 1, and dependant claims 2 - 19 that depend therefrom, cannot be unpatentable over the combination of *Chan* and *King*, as none of the cited references, either alone or in combination, teach or suggest all of the claim limitations.

The Examiner has also rejected claim 21 under 35 U.S.C. 103(a) as unpatentable over *Kollanyi* in view of *Traa*, and claim 22 under 35 U.S.C. 103(a) as unpatentable over *Kollanyi* in view of *Thorton*. The Examiner states that *Kollanyi* discloses a system as discussed above with regard to claim 20 and that *Traa* and *Thorton* teach the new elements added in claims 21 and 22 respectively. As described above, *Kollanyi* does not disclose the system claimed in claim 20, as *Kollanyi* does not disclose each and every element of the claim. Accordingly, claim 21 cannot be unpatentable over the combination of *Kollanyi* in view of *Traa*, and claim 22 cannot be unpatentable over the combination of *Kollanyi* in view of *Thorton*.

In light of the above, it is respectfully submitted that claims 1, 2, 4-6, 8, 9, 13-15 and 17-19 cannot be unpatentable over *Chan* in view of *King*; claim 3 cannot be unpatentable over *Chan* in view of *King* and further in view of *Jau*; claims 7, 11 and 16 cannot be unpatentable over *Chan* in view of *King* and further in view of *Traa*; claim 10 cannot be unpatentable over *Chan* in view of *King* and further in view of *Traa* and *Giebel*; claim 21 cannot be unpatentable over *Kollanyi* in view of *Traa*; and claim 22 cannot be unpatentable over *Kollanyi* in view of *Thorton*, as the prior art references do not teach or suggest all of the claim limitations.

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<sup>3</sup> Although the Examiner notes that the claim does not specifically disclose specific details regarding the "diagnostic data," the meaning of digital diagnostic data is clear from both its plain meaning and the specification, which provides numerous examples of such data.

***Allowable Subject Matter***

The Examiner has noted that claim 12 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. New claim 23 provides such a claim, and, therefore is in condition for allowance.

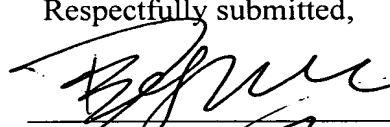
***CONCLUSION***

In view of the foregoing, it is respectfully submitted that the application is now in a condition for allowance. However, should the Examiner believe that the claims are not in condition for allowance, the Applicant encourages the Examiner to call the undersigned attorney at 650-843-7519 to set up an interview.

If there are any fees or credits due in connection with the filing of this Amendment, including any fees required for an Extension of Time under 37 C.F.R. Section 1.136, authorization is given to charge any necessary fees to our Deposit Account No. 50-0310 (order No. 060900-0157-US). A copy of this sheet is enclosed for such purpose.

Respectfully submitted,

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